

Serial No. 10/532,632

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Please amend the specification as follows:

Please amend the paragraph beginning on page 17, line 16 as follows:

FIG. 10A is a block diagram of one embodiment of the enhanced tuner/modulator 904 and FEC decoder 506. FIG. 10A depicts reception where layer subtraction is performed on a signal where the upper carrier has been demodulated. The upper layer of the received combined signal 1016 from the LNB 502, which may contain legacy modulation format, is provided to and processed by an upper layer demodulator 1004 to produce the stable demodulated signal 1020. The demodulated signal 1020 is fed to a communicatively coupled FEC decoder 1002 which decodes the upper layer to produce the upper layer symbols which are output to an upper layer transport. The upper layer symbols are also used to generate an idealized upper layer signal. The upper layer symbols may be produced from the decoder 1002 after Viterbi decode ($BER < 10^{-3}$ or so) or after Reed-Solomon (RS) decode ($BER < 10^{-9}$ or so), in typical decoding operations known to those skilled in the art. The upper layer symbols are provided via feedback path 902 from the upper layer decoder 1002 to a re-encoder/remodulator 1006 which effectively produces an idealized upper layer signal. The idealized upper level signal is subtracted from the demodulated upper layer signal 1020.

Please amend the paragraph beginning on page 18, line 11 as follows:

A subtractor 1012 then subtracts the idealized upper layer signal from the stable demodulated signal 1020. This leaves the lower-power second layer signal. The subtractor 1012 may include a buffer or delay function to retain the stable demodulated signal 1020 while the idealized upper layer signal is being constructed. The second layer signal is demodulated by the lower level demodulator 1010 and FEC decoded by decoder 1008 according to its signal format to produce the lower layer symbols, which are provided to the transport module 208.

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Please amend the paragraph beginning on page 18, line 18 as follows:

FIG. 10B depicts another embodiment wherein layer subtraction is performed on the received layered signal. In this case, the upper layer demodulator 1004 produces the upper carrier signal 1022 (as well as the stable demodulated signal output 1020). An upper carrier signal 1022 is provided to the remodulator 1006. The remodulator 1006 provides the remodulated signal to the non-linear distortion mapper 1018 which effectively produces an idealized upper layer signal. Unlike the embodiment shown in FIG. 10A, in this embodiment, the idealized upper layer signal includes the upper layer carrier for subtraction from the received combined signal ~~[[416]]~~ 1016.

Please amend the paragraph beginning on page 24, line 20 as follows:

Referring first to FIG. 12A, the upper layer signal and lower layer signal are combined to form an input signal 1301, as ~~showing shown in~~ block 1202. In block 1204, the combined upper layer and lower layer signals are encoded. This can be accomplished, for example, using the encoder 1302 shown in FIG. 13. Next, symbols are assigned to the encoded upper and lower layer signals. This can be accomplished by the UL symbol assignor 1304 and the LL symbol assignor 1306. The UL signal, in the form of UL symbols, is then delayed by delay element 1308. This is shown in block 1206. As will become clear, the upper layer signal is delayed by an amount of time necessary for a receiver of the transmitted coded signal to remodulate and re-encode a demodulated upper layer signal so that the lower layer signal can be incoherently demodulated.